

Title (en)
Thermal-type air flow measuring instrument

Title (de)
Thermische Vorrichtung zum Messen der Luftströmung

Title (fr)
Instrument du type thermique pour la mesure de l'écoulement d'air

Publication
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Application
EP 95116354 A 19951017

Priority
JP 25180194 A 19941018

Abstract (en)
[origin: EP0708315A2] There is disclosed a thermal-type air flow measuring instrument which judges whether the direction of flow of a fluid, ranging from a static flow to a pulsating flow involving a reverse flow, is forward or reverse, and outputs a signal corresponding to the flow rate of the fluid, thereby measuring the flow rate with high precision. An auxiliary passage is provided in a fluid passage, and is constituted by first, second and third passageways. Two temperature sensing resistors are mounted respectively at an upstream side and a downstream side within the first passageway in close proximity to each other. Most of the fluid, flowed into the first passageway in a forward direction, flows through the second passageway. The third passageway serves to direct a reverse flow of the fluid toward the temperature sensing resistors. Results of measurement of the flow rate of intake air in an internal combustion engine indicate that a minus error due to a pulsating flow, experienced in the conventional construction, is eliminated almost completely, and that a plus error due to a reverse flow is reduced to about 1/10. <IMAGE>

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